

New Claims

1. Method for reinforcing an article comprising attaching to at least one surface of said article a tape, film or yarn of a drawn thermoplastic polymer.
2. Method according to claim 1, wherein said article comprises a solid
5 thermosetting or thermoplastic material.
3. Method according to claim 1 or 2, wherein said article comprises a thermoplastic material of essentially the same composition as said tape, film or yarn, which method optionally further comprises recycling the reinforced article.
- 10 4. Method according to any of the previous claims, wherein said tape, film or yarn is attached to said article by means of a heat treatment and/or by applying pressure.
5. Method according to any of the previous claims, wherein said tape, film or yarn is in the form a woven or non-woven cloth.
- 15 6. Method according to any of the previous claims, wherein said tape, film or yarn comprises a polyester and/or a polyolefin, preferably a polyethylene, a polypropylene or a combination thereof.
7. Method according to any of the previous claims, wherein the tape, film or yarn is a drawn thermoplastic polymer of the AB or ABA type
20 substantially consisting of a central layer (B) of a first thermoplastic polymer and one or two other layers (A) of a second thermoplastic polymer, the DSC melting point of the material of the said other layers (A) being lower than the DSC melting point of the material of the said central layer (B).
8. Method according to any of the preceding claims, wherein said tape,
25 film or yarn is a monoaxially drawn thermoplastic polymer, having a stretch ratio of more than 12 and having an E-modulus of at least 5 GPa, preferably of at least 10 GPa.

9. Method according to claim 7 or 8, wherein said tape, film or yarn substantially consisting of a central layer (B) of a polyolefin selected from polyethylene and polypropylene, and one or two other layers (A) of a polyolefin from the same class as the material of the central layer B, the DSC melting point of the material of the said other layers (A) being lower than the DSC melting point of the material of the said central layer (B), wherein the central layer (B) is between 50 and 99 wt.% of the material and the other layers (A) between 1 and 50 wt.%.
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10. Method according to any of the preceding claims, comprising the steps of forming the tape, film or yarn in to a shaped material to act as a reinforcing material and applying a covering layer, preferably a surface finish, to at least part of the shaped material.
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11. Method according to claim 10, wherein upon at least part of the shaped material a layer of foam is applied, before applying the covering layer upon at least part of the foam.
12. Method according to claim 10 or 11, wherein the covering layer and/or the foam are selected from the group consisting of thermoplastic olefines, preferably from the group of polyethylenes, polypropylenes and copolymers of polyethylenes and polypropylenes.
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13. Reinforced article obtainable by a method according to any of the previous claims.
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14. Article, of which at least one surface is provided with a tape, film or yarn of a drawn thermoplastic polymer as defined in any of the claims 1, 5, or 6-9.
15. Article according to any of the claims ~~10~~ ¹³ or ~~11~~ ¹⁴, wherein the article is selected from the group consisting of articles for the automotive/bodywork industry (e.g. car doors, mud guards, bumpers, engine covers, dash boards, door styles, clutch handles, clutch covers, safety belt holders), articles for the building/construction industry (e.g. ladders, scaffolds, wall-panels, ceiling panels, laths, cable-troughs, skirting-boards, beams, girders, tubes, pipes),
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30 articles for fluid transportation (e.g. tubes or pipes for the water industry, gas

industry, oil industry, including off-shore industry), articles for marine yacht building, articles for ballistic purposes (e.g., protective panels, bomb explosion shells, protective shields, parts for vehicles), articles for medical/para-medical purposes (e.g. orthesic articles, cables, prostheses, tables for surgery, parts for wheel-chairs) and house-hold articles.

16. Use of a tape, film or yarn as defined in any of the claims 1 or 5-9 for improving the mechanical strength, the stiffness and/or the impact resistance of an article.